

## Claims

1. An apparatus comprising a vessel having a conduit extending therefrom, and a stirrer, a section of which is adapted to be located within the conduit and a section of which is adapted to be located within the vessel, wherein said stirrer is adapted such that, in use, material contained within the conduit is conveyed in a direction towards the vessel.  
5
2. An apparatus comprising a vessel having a conduit extending therefrom, and a stirrer, a section of which is adapted to be located within the conduit and a section of which is adapted to be located within the vessel, wherein said stirrer is adapted such that, in use, material contained within the conduit is conveyed through the conduit in a direction away from the vessel.  
10
3. An apparatus, comprising a vessel having a conduit extending therefrom, and a stirrer, a section of which is adapted to be located within the conduit and a section of which is adapted to be located within the vessel, wherein said stirrer is adapted such that, when rotated in a first direction, material contained within the conduit is conveyed in a direction towards the vessel, and when rotated in a second direction, material  
15 contained within the conduit is conveyed through the conduit in a direction away from the vessel.
4. The apparatus according to any one of claims 1 to 3, wherein the stirrer comprises a first part adapted to be connected to a suitable stirrer drive and comprising the section of the stirrer which is adapted to be located within said vessel, said first part  
20 being further adapted to stir material in the vessel when the stirrer is rotated, and a second part, adapted to be connected to said first part and comprising the section of the stirrer which is adapted to be located within the conduit.

5. The apparatus according to claim 4 wherein the first part comprises a shaft about which are located one or more stirrer blades.
6. The apparatus according to any one of the previous claims wherein the section of the stirrer which is adapted to be located within the conduit comprises one or more  
5 flutes which describe a helical path about the rotational axis of the stirrer.
7. The apparatus according to claim 6 wherein the one or more flutes have a helical angle of between 20° and 70°.
8. The apparatus according to any one of the preceding claims wherein the section of the stirrer adapted to be located within the conduit, is such that, in use within the  
10 conduit, the portion at a location within the conduit has an effective diameter of at least 50%, preferably in the range 70 to 90%, of the inner diameter of the conduit at that location within the conduit.
9. The apparatus according to any one of the preceding claims wherein the vessel is a reaction vessel with a volume in the range of 10ml to 500ml.
- 15 10. A high throughput reaction system comprising 4 or more apparatuses as claimed in claim 9
11. A method of stirring one or more materials in an apparatus, which method comprises using an apparatus as claimed in any one of claims 1 to 9 or a high throughput reaction system as claimed in claim 10.
- 20 12. A stirrer, said stirrer being adapted for use in the method of claim 11.

25

30